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Government
Publications

Small Subsidy
offshore exploration
information and procedures

fourth issue — august 1970



resource administration division
department of energy, mines and resources
ottawa, canada

offshore exploration

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FOREWORD

This publication is prepared in response to the continuing need for liaison between the oil and mining industries and the various federal agencies concerned with Canada's interests offshore. The main purposes of this publication are: to outline the responsibilities and requirements of federal agencies concerned with the Offshore for operating companies who may not be familiar with them; to note some of the services available through these agencies; and, to list the persons who may be contacted for assistance.

This booklet supercedes the third issue dated January 1969, which had a red cover and was identically titled. It has been prepared by the Resource Administration Division to assist in the coordination of activities by Industry and Government with respect to the Offshore.

Every effort has been made to ensure the accuracy of the information provided, and the Division gratefully acknowledges the contributions of the agencies referred to. Any comments directed towards improving the publication's effectiveness would be welcome.

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INTRODUCTION

The administration of the federal interests in the mineral resources off Canada's east and west seacoasts and in the Hudson Bay and Hudson Strait regions is the responsibility of the Resource Administration Division of the Department of Energy, Mines and Resources. Administration of the mineral resources in the Territories and underlying the waters of the high Arctic Offshore is the responsibility of the Northern Economic Development Branch of the Department of Indian Affairs and Northern Development.

Generally speaking, the same sets of regulations apply to all Canada Lands, whether onland or offshore, with the regulatory requirements designed where necessary to take into account the different conditions that prevail in the two environments.

To date, interest in the mineral resources of Canada's offshore areas has been confined for the most part to the search for oil and gas. The regulations governing the disposition of oil and gas rights are the Canada Oil and Gas Land Regulations. They were promulgated under the Public Lands Grants Act and the Territorial Lands Act, and it is the former Act that gives statutory authority as concerns the Offshore. The Canada Oil and Gas Land Regulations also provide to some extent for authorization and control of operations in the Offshore, and have been used in conjunction with the Canada Oil and Gas Drilling and Production Regulations. Bill S-5, designed to amend the Oil and Gas Production and Conservation Act so that it applies to the Offshore as well as to the Territories, received Royal Assent on June 11, 1970. This amended Act provides for comprehensive statutory authority for controlling all oil and gas operations in the Offshore, including the prevention of waste and pollution and the safety of personnel.

The method of making offshore oil and gas rights available for development involves two stages, a permit (exploration) stage and a lease (production) stage.

At the outset, before undertaking exploration work on any Canada Lands, a party must first acquire an exploratory licence. A licence, which costs \$25.00, is necessary whether or not the party is already a permittee or lessee. A licensee may carry

out exploration work on Canada Lands in any region of the Offshore or Territories, short of drilling a well.

An exploratory permit, in contrast to a licence, involves a specific area of Canada Lands. It gives the permittee the option of acquiring oil and gas leases within the permit area, and the privilege of being allowed to drill wells within the permit area. Each permit normally covers a grid area or half-grid area. A grid area south of latitude 70° North is delimited by lines of latitude 10 minutes apart and lines of longitude 15 minutes apart. North of latitude 70° North a grid area is delimited by lines of latitude 10 minutes apart and lines of longitude 30 minutes apart. Grid areas vary in area: for example they comprise less than 64,000 acres off the northern tip of Labrador and more than 95,000 acres south of Nova Scotia. A party makes application for permits either in person or through an authorized agent at the offices of the Resource Administration Division, Department of Energy, Mines and Resources — or the Oil and Mineral Division, Department of Indian Affairs and Northern Development, as the case may be — where master grid maps are available showing the areas open for filing.

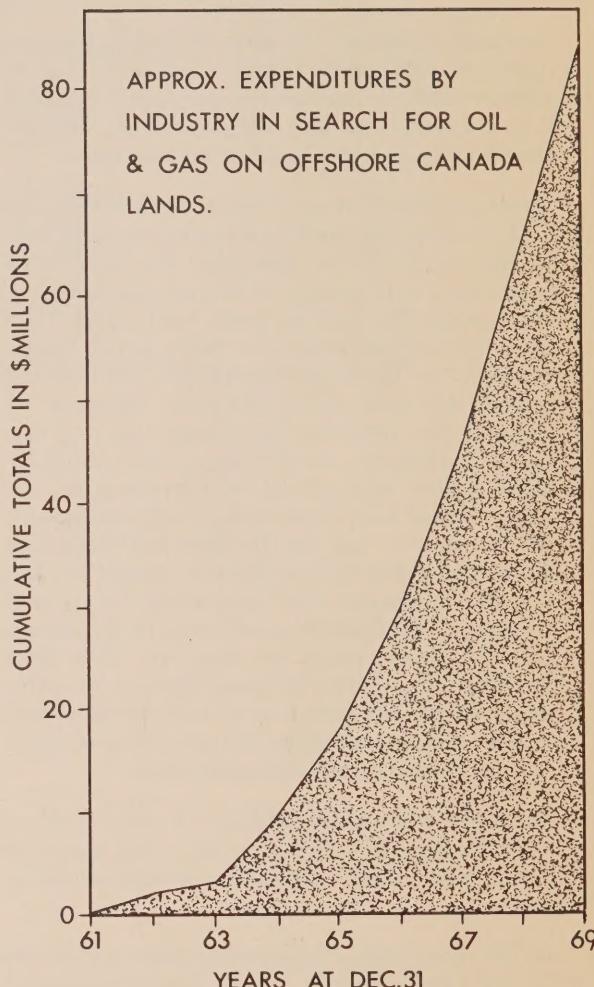
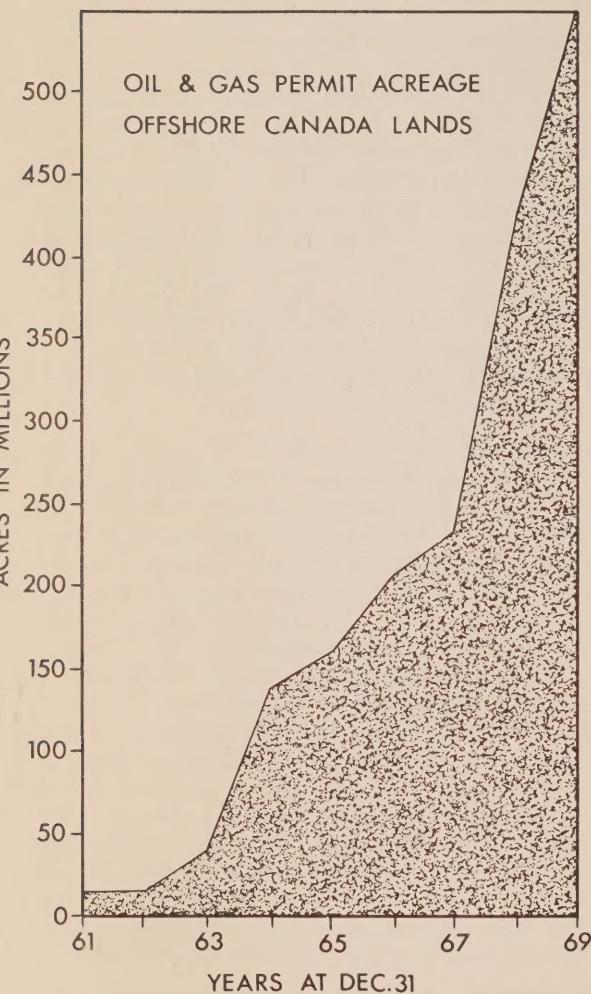
Offshore permits are valid for six years, with six renewals each of one year. The applicant must pay a fee of \$250.00 for each permit at the time of issuance, and he must deposit money, bonds or a demand promissory note at the same time to the full amount of the work requirements for the first period as a guaranty that the work will be carried out. Similarly, guaranty deposits must be made prior to each succeeding work period. All such guaranty deposits are returned upon receipt of satisfactory evidence that appropriate work has been performed. Permit work requirements increase progressively so as to reflect the progressive increase in expenditures necessary to effectively evaluate an area, from relatively inexpensive reconnaissance work, through detailed geophysical surveys, to high-cost exploratory drilling operations. The work requirements for the full 12-year life of offshore permits vary from \$2.65 to \$2.70 per acre.

Commercial production cannot be undertaken while acreage is still in permit form, it must first be converted to lease. No oil and gas leases have been issued as yet in any of Canada's offshore areas.

There are certain 'Canadian participation provisions' that apply to the lease stage. In accordance with these provisions, any individual wishing to obtain a lease must be a Canadian citizen, and any company wishing to do so must be incorporated in Canada. In the case of a private company, at least half of its issued shares must be beneficially held by Canadian citizens, unless it is a wholly-owned subsidiary of a private company, in which case the parent company need not be incorporated in Canada but must meet the foregoing ownership requirement.

In the case of a public company, its shares must be listed on a recognized Canadian stock exchange, unless it is a wholly-owned subsidiary of a public company, in which case the parent company need not be incorporated in Canada but must list its shares on a Canadian stock exchange.

The following two graphs illustrate the order of magnitude of permit acreage and net cash expenditures over recent years in the Canadian offshore.



FEDERAL AGENCIES CONCERNED WITH OFFSHORE EXPLORATION

Certain federal agencies concerned with Canada's offshore regions must be notified prior to the commencement of any offshore exploration activity. The operator or permittee - not the contractor - is responsible for providing the requisite advance notice of planned offshore programs to these agencies by writing direct to them.

The agencies that must be informed in advance of each and every program off Canada's east and west coasts and in the Hudson Bay and Hudson Strait regions are:

*Resource Administration Division,
Department of Energy, Mines and Resources.*

*Office of the Commander, Maritime Command,
Halifax, Department of National Defence.*

*Aids to Navigation Division,
Ministry of Transport.*

*Resource Development Branch,
Department of Fisheries and Forestry.*

Offshore programs in the far North are administered by the Northern Economic Development Branch of the Department of Indian Affairs and Northern Development.

It is important to note that in the case of the Hudson Bay region, operators must also inform the National Research Council of proposed operations. Circumstances may be such that other agencies should also be notified, and these are listed on the following pages, together with the names of persons who may be of assistance. For example, since operators may be responsible for any damage caused to underwater commercial cables, it is recommended that they contact the Canadian Hydrographic Service for cable-lay data covering the area over which the work is to be performed. As another example, Customs and Excise should be contacted by the importing company if vessels or equipment are to be brought in from abroad.



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Section A

This section outlines the requirements of the federal agencies that must be notified of offshore operations.

DEPARTMENT OF ENERGY, MINES AND RESOURCES

Resource Administration Division

As stated in the Introduction, the Resource Administration Division is responsible for the administration of the federal interests in the mineral resources off Canada's east and west seacoasts and in the Hudson Bay and Hudson Strait regions.

All offshore operators, or prospective operators, must provide the Division with at least 45 days notice in advance of the commencement date of any proposed program. Official Notices, reduced-scale copies of which are shown in Appendix F, must be submitted in triplicate in compliance with Section 52 of the Canada Oil and Gas Land Regulations. They should be accompanied by maps showing the proposed offshore work program together with written confirmation that the proper advance notice of the program has been supplied to the Office of the Commander, Maritime Command, Department of National Defence, the Aids to Navigation Division of the Ministry of Transport; and, the Resource Development Branch of the Department of Fisheries and Forestry. These agencies are referred to in more detail in the next few pages.

The Resource Administration Division also requests advance notice of programs in cases where operators plan expenditures for adjacent onland areas that they intend to submit for approval under Section 46 of the Canada Oil and Gas Land Regulations.

As a general rule, all correspondence should be addressed to:

*Chief,
Resource Administration Division,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.*

*Name: D.G. Crosby
Phone: (613) 994-5065*

Assistance with respect to operational matters, for example the drilling, completion or plugging of offshore wells, report requirements for geophysical surveys or drilling programs, and the availability of reports or well materials after their release from confidential status, may be obtained from:

*Senior Conservation Engineer,
Resource Administration Division.*

*Name: M. Bell
Phone: (613) 994-9756. After hours: (613) 236-3368*

or from:

*Chief Engineer,
Resource Administration Division.*

*Name: G.R. Yungblut
Phone: (613) 994-9815*

Information on cores, cuttings, micropaleontological and other well materials, sources of geological information and the like, may be obtained from:

*Senior Geologist,
Resource Administration Division.*

*Name: D.F. Sherwin
Phone: (613) 994-5042*

Advice and assistance on matters relating to the disposition of mineral rights, such as the issuance and terms of permits and leases, may be obtained from:

*Chief Administrator, Lands,
Resource Administration Division.*

*Name: D.L. Tough
Phone: (613) 994-5145*

Information on the use of bonds and promissory notes for meeting guaranty deposit requirements is provided in Appendix B.

On the East Coast, information and assistance is available from the Division's regional office at Dartmouth:

*Conservation Engineer,
Resource Administration Division,
Department of Energy, Mines and Resources,
Bedford Institute,
Dartmouth, Nova Scotia.*

*Name: J.D. Clinton
Phone: (902) 426-3179
After hours: (902) 463-3614*

Additional information in the appendices include reduced-scale copies of official Notices already referred to, small-scale offshore permit maps, availability of reports and well materials released from confidential status, a Departmental organization chart, and a list of publications.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

Northern Economic Development Branch

This agency administers the mineral resources in the Beaufort Sea and other offshore areas north of Hudson Bay and Hudson Strait. Information and assistance may be obtained from:

*Chief,
Oil and Mineral Division,
Northern Economic Development Branch,
Department of Indian Affairs and Northern
Development, Ottawa 4, Ontario.*

*Name: H.W. Woodward
Phone: (613) 992-5179*

Advice on operational and related matters in the far North can also be obtained from:

*Administrator, Oil and Gas,
Oil and Mineral Division.
Name: R.R. McLeod
Phone: (613) 992-6311*

or from

*Supervisor, Geological Operations,
Oil and Mineral Division.*

*Name: S.A. Kanik
Phone: (613) 992-2279*

In Calgary, information and assistance is available from:

*Oil Conservation Engineer,
Oil and Mineral Division,
Northern Economic Development Branch,
Department of Indian Affairs and Northern
Development, Main Floor, Regency Building,
112-11th Avenue S.E.,
Calgary 21, Alberta.*

*Name: B.H.J. Thoms
Phone: (403) 264-0201*

DEPARTMENT OF NATIONAL DEFENCE

Office of the Maritime Commander

The appropriate Office of Maritime Command should be given 45 days advance notice in writing of any offshore exploration program. Prior to the commencement of field work, an employee of the operator may have to confer with staff officers of Maritime Command on such matters as underwater defence cables, naval operations and shipwreck positions in the area involved. Relevant information will be supplied the operator on a need-to-know basis. Approval must be obtained from the Department of National Defence before work can commence.

It would facilitate matters for an employee of the operator or permittee to have obtained security clearance prior to discussion of a proposed program with staff officers of Maritime Command. Security clearance for industry personnel is obtained through the Resource Administration Division of the Department of Energy, Mines and Resources, and

details of the procedures involved are given in Appendix A.

Operations in the Atlantic Ocean, including the Gulf of St. Lawrence, the Labrador Sea, Hudson Bay, and Arctic waters east of longitude 141° West, are handled by the office of:

*Commander, Maritime Command,
Department of National Defence,
F.M.O., HMC Dockyard,
Halifax, Nova Scotia.*

Maritime Command Operations Centre –
Phone: (902) 454-7771, local 2706

Operations off the west coast are handled by the Office of:

*Commander, Maritime Forces Pacific,
Department of National Defence,
F.M.O.,
Victoria, British Columbia.*

Staff Officer Operations – *Phone: (604) 567-1597*

MINISTRY OF TRANSPORT

Aids to Navigation Division

At least 60 days notice is required by this agency prior to the commencement of any proposed offshore program. This lead time is needed in the event that the location of the program warrants the issuance of a "Canadian Notice to Mariners". These national Notices are subsequently copied into related foreign publications. Local "Notices to Shipping" covering the program are issued if the national Notices are not considered necessary.

Aids to Navigation Division may also specify the aids to navigation devices needed for the proposed program.

The Ministry of Transport has the duty to protect navigation with respect to works in navigable waters. A "work" would include any structure, pipe, pile or buoy used in connection with the exploration for, or development of, resources located in or under the water. The Aids to Navigation Division processes applications for approval or exemption under the Navigable Waters Protection Act, and will answer inquiries in this regard.

Communications should be directed to:

*Chief,
Aids to Navigation Division,
Marine Works Branch,
Ministry of Transport,
Ottawa 4, Ontario.*

*Name:
Phone: (613) 992-2736*

In addition, there are a number of Departmental officers who may be contacted in the field should the need arise. Their addresses are as follows:

*District Marine Agent,
Ministry of Transport,
P.O. Box 1300,
St. John's, Newfoundland.*

*Regional Director, Marine Services,
Ministry of Transport,
P.O. Box 668,
Dartmouth, Nova Scotia.*

*District Manager,
Ministry of Transport,
P.O. Box 1000,
Dartmouth, Nova Scotia.*

*District Manager,
Ministry of Transport,
P.O. Box 1270,
Charlottetown, Prince Edward Island.*

*District Manager,
Ministry of Transport,
P.O. Box 730,
Saint John, New Brunswick.*

*District Marine Agent,
Ministry of Transport,
P.O. Box 310, Uppertown,
Quebec 4, Quebec.*

(This office handles Hudson Bay)

*District Manager,
Ministry of Transport,
P.O. Box 155,
Hay River, Northwest Territories.*

*Regional Director, Marine Services,
Ministry of Transport,
7th Floor, 549 Howe Street,
Vancouver 1, British Columbia.*

*District Manager,
Ministry of Transport,
P.O. Box 367,
Prince Rupert, British Columbia.*

*District Manager,
Ministry of Transport,
P.O. Box 1180,
Victoria, British Columbia.*

DEPARTMENT OF FISHERIES AND FORESTRY

Resource Development Branch

Advance notice of 90 days is required by this agency before commencement of a marine seismic survey involving the use of high explosives. This lead time is necessary in case it should be decided that qualified Fisheries observers are to be present. This agency must also be informed of any offshore drilling program prior to its commencement. Advance notice is also required, for information purposes, before the start of other types of seismic surveys.

Written notices should be sent to the appropriate Regional Director (see below) with a copy to:

*Director,
Environmental Quality,
Department of Fisheries and Forestry,
Sir Charles Tupper Building,
Ottawa 8, Ontario.
Name: K.C. Lucas
Phone: (613) 997-8041*

Information regarding the Department's requirements may also be obtained from:

*Deputy Director,
Resource Development Branch,
Name: E.W. Burridge
Phone: (613) 997-4526*

The addresses of the Regional Directors of Fisheries, Department of Fisheries and Forestry, are as follows:

EAST COAST:

*P.O. Box 550,
Halifax, Nova Scotia.
Name: R.N. Gordon
Phone: (902) 426-2315*

*P.O. Box 5667,
St. John's, Newfoundland.
Name: H.R. Bradley
Phone: (709) 726-7333*

HUDSON BAY:

*114 Garry Street,
Winnipeg, Manitoba.
Name: R.E. MacLaren
Phone: (204) 946-8110*

WEST COAST:

*1155 Robson Street,
Vancouver 5, British Columbia.
Name: W.R. Hourston
Phone: (604) 544-1671*

Section B

This section outlines for prospective offshore operators the responsibilities or specialized services of other federal agencies concerned with the Offshore.

NATIONAL RESEARCH COUNCIL

Space Research Facilities Branch

Operators planning offshore activities in the Hudson Bay region must inform the following agency of the National Research Council well in advance since rockets are fired on a year-round basis from the Churchill Research Range:

*Head, Range Section,
Space Research Facilities Branch,
National Research Council,
Ottawa 7, Ontario.
Name: Z.R. Charko
Phone: (613) 993-9385*

In addition, operators active in the Hudson Bay

region are required to coordinate their field activities with:

*General Superintendent,
Churchill Research Range,
National Research Council,
Fort Churchill, Manitoba.
Name: T.W. McGrath
Phone: (204) 856-3010*

Rockets will be launched from time to time from the facility at Resolute Bay, N.W.T., and in July, 1972, from the facility at Smith's Point, East Quoddy, Nova Scotia. Operators with exploration work planned for these vicinities are strongly urged to coordinate their activities with the National Research Council.

DEPARTMENT OF ENERGY, MINES AND RESOURCES

Surveys and Mapping Branch

Information on the systems, methods and equipment utilized in positioning and surveying with respect to exploration work may be subject to review by this agency. Moreover, legal surveys must be made in accordance with instructions of the Surveyor General.

Inquiries concerning offshore surveying may be directed to:

*Surveyor General,
Legal Surveys Division,
Surveys and Mapping Branch,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.*

*Name: R. Thistletonwaite
Phone: (613) 994-9174*

Information concerning coastal control surveys may be obtained from:

*Geodetic Survey Division,
Surveys and Mapping Branch,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.*

*Attention: C.E. Hoganson
Phone: (613) 994-5079*

longitude. In the case of a large area, it is important to state priorities within the area to facilitate processing.

Canadian Hydrographic Service

Operators may be responsible for any damage caused to underwater commercial cables. Every operator planning to undertake an offshore program is strongly urged to ascertain well in advance of the planned date of commencement the disposition of any commercial cables within the area involved. Requests for such information, accompanied by a plan showing the specific work area, should be sent to:

*Canadian Hydrographic Service,
Marine Sciences Branch,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.*

*Attention: J. Bruce
Phone: (613) 994-9487*

If desired, relevant information supplied by the operator or permittee on the proposed program will be treated as confidential.

When requesting control survey data, the area involved should be designated by latitude and

MINISTRY OF TRANSPORT

Marine Regulations Branch

This Branch includes the Steamship Inspection Division and the Nautical and Pilotage Division. The responsibilities of the former Division include inspection and certification of vessels under the Canada Shipping Act, oil pollution by vessels, and safety of life at sea. The responsibilities of the latter Division include registration of shipping, pilotage, marine accident investigation and inquiries, salvage, marine personnel and navigational safety matters. This last includes the establishment of restricted navigation areas and the routing of ships.

Further information and assistance may be obtained from:

*Director,
Marine Regulations Branch,
Ministry of Transport,
Ottawa 4, Ontario.*

*Name: R.R. Macgillivray
Phone: (613) 992-8892*

Information with regard to safety of life at sea and acceptable standards of seaworthiness may be referred to:

*Chairman,
Board of Steamship Inspection,
Marine Regulations Branch.*

*Name: W.E. Harrison
Phone: (613) 992-1312*

Marine Operations Branch

This agency directs the operations of the Canadian Coast Guard, which has major responsibilities in two areas of concern to offshore operators: support of shipping in ice-congested waters, and marine search and rescue.

If operations are being contemplated for areas where ice may be a problem and where icebreaker or other support may be desired, there should be consultation with the Director of Marine Operations as long in advance as possible. This is particularly important in the case of Arctic or Hudson Bay operations where the planning of icebreaker disposition is usually done six months in advance of the season.

Further information and assistance may be obtained from:

*Director,
Marine Operations Branch,
Ministry of Transport,
Ottawa 4, Ontario.*

*Name: A.H.G. Storrs
Phone: (613) 992-4209*

DEPARTMENT OF NATIONAL REVENUE

Customs and Excise

The Port Administration Division administers that portion of the Canada Shipping Act relating to the coasting trade. A company importing ships or specialized plant and equipment for exploration work off Canada's seacoasts may obtain information, assistance and other contacts as may be necessary in Customs and Excise from:

*Director,
Port Administration Division,
Customs and Excise,
Department of National Revenue,
Ottawa, Ontario.*

*Name: M.A. Gallup
Phone: (613) 992-4952*

DEPARTMENT OF COMMUNICATIONS

Telecommunications Regulation Branch

The responsibilities of this agency include the development of technical standards, the selection and coordination of radio frequencies, and the licensing of all classes of radio stations except broadcasting.

An operator contemplating the use of radio communications in his offshore activities should make application for licensing of any radio station in Canada or on board any Canadian vessel involved at least six weeks before the proposed in-service date of the communication facility. Details as to the licensing requirements and the necessary application forms may be obtained from the Regional Superintendent, Telecommunications Regulation Branch, Department of Communications:

*Terminal Centre (Moncton) Ltd. Bldg.,
1234 Main Street,
Moncton, New Brunswick.*

*Name: J.R.R. Valiquette
Phone: (506) 858-2025*

*Regional Administration Building,
Montreal International Airport,
Dorval, Quebec.*

*Name: J.E.T. Foucault
Phone: (514) 636-3248*

*55 St. Clair Avenue East,
4th Floor,
Toronto 290, Ontario.*

*Name: L.I. Greenwood
Phone: (416) 966-6265*

*Room 405, Revenue Building,
391 York Avenue,
Winnipeg, Manitoba.*

*Name: E.R. Shea
Phone: (204) 985-4395*

*Federal Building,
9820-107th Street,
Edmonton, Alberta.*

*Name: L.E. Nelson
Phone: (403) 424-0251*

*739 West Hastings Street,
Vancouver 1, British Columbia.*

*Name: D.T. Black
Phone: (604) 666-3398*

If need be the following in Ottawa may be contacted for assistance:

*Director,
Telecommunications Regulation Branch,
Department of Communications,
Ottawa, Ontario.*

*Name: W.J. Wilson
Phone: (613) 992-0840*

Advice in determining communication requirements and the necessary applications for licence may also be obtained from:

*Chief,
Radio Authorization and Enforcement Division,
Department of Communications,
Ottawa, Ontario.*

*Name: A.G.E. Argue
Phone: (613) 992-3427*

DEPARTMENT OF MANPOWER AND IMMIGRATION

Canada Immigration Division

Assistance with regard to this agency, which is concerned with persons other than Canadian citizens or legal residents, is available from:

*Head, Non-Immigrant Unit,
Home Services Branch,
Canada Immigration Division,
Department of Manpower and Immigration,
Ottawa, Ontario.*

*Name: G.E. White
Phone: (613) 992-3305*

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

Canadian Wildlife Service

The Service discharges federal responsibilities in regard to wildlife. Information, such as the locations of migratory bird sanctuaries along the sea coasts, may be obtained from:

*Director,
Canadian Wildlife Service,
Department of Indian Affairs and Northern
Development,
Ottawa 4, Ontario
Attention: N.G. Perret
Phone: (613) 992-5305*

DEPARTMENT OF INDUSTRY, TRADE AND COMMERCE

Marine, Aerospace and Rail Branch

A major objective of the Department of Industry, Trade and Commerce is to encourage Canadian participation in the development, manufacture and supply of equipment and techniques for exploration and exploitation of Canada's offshore mineral resources. Activities include the provision of shipbuilding subsidies and financial assistance for research and development of marine equipment.

Inquiries should be directed to:

*Chief,
Marine Division,
Aerospace, Marine and Rail Branch,
Department of Industry, Trade and Commerce,
Ottawa 4, Ontario.*

*Name: M.J. Colpitts
Phone: (613) 992-0285*

Section C

This section refers to those agencies in the federal government that are in a position to provide specialized scientific information that may be of benefit to offshore operators.

DEPARTMENT OF ENERGY, MINES AND RESOURCES

Marine Sciences Branch

In addition to providing the commercial-cable lay data referred to in Section B, the Canadian Hydrographic Service publishes charts of Canadian coastal waters, and information concerning these may be obtained from:

*Canadian Hydrographic Service,
Marine Sciences Branch,*

*Attention: W.J. Covey
Phone: (613) 994-9155*

Information concerning charts showing Canada's Territorial Sea and Fishing Zone Limits and related data may be obtained from:

*Canadian Hydrographic Service,
Marine Sciences Branch,*

*Attention: E.J. Cooper
Phone: (613) 994-5411*

Information on physical oceanography may be obtained from:

*Canadian Oceanographic Data Centre,
Marine Sciences Branch,*

*Attention: C.M. Cross
Phone: (613) 992-9104*

Information on tides may be obtained from:

*Tides and Water Levels,
Marine Sciences Branch.*

*Attention: G.C. Dohler
Phone: (613) 992-9122*

Information on hydrographic surveys and control data off the west coast and in the western Arctic regions may be obtained from:

*Regional Hydrographer,
Canadian Hydrographic Service,
512 Federal Building,
Victoria, British Columbia.*

*Name: M.Bolton
Phone: (604) 338-3188*

Information on hydrographic surveys and control data in the eastern Arctic and off Canada's east coast may be obtained from:

*Regional Hydrographer,
Canadian Hydrographic Service,
Atlantic Oceanographic Laboratory,
Bedford Institute,
Dartmouth, Nova Scotia.*

*Name: R.C. Melanson
Phone: (902) 426-3497*

The Atlantic Oceanographic Laboratory in Dartmouth brings together a broad spectrum of scientific, engineering and technical disciplines, as well as support facilities, notably ships, essential to carrying out research and surveys in physical and chemical oceanography, marine geology and geophysics, hydrography, control data, and advanced scientific instruments for marine applications. Information and assistance with regard to the work of this agency may be obtained from:

*Director,
Atlantic Oceanographic Laboratory,
Marine Sciences Branch,
Department of Energy, Mines and Resources,
Bedford Institute,
Dartmouth, Nova Scotia.*

*Name: W.L. Ford
Phone: (902) 426-2478 (Information)*

Information on the properties of sea ice, Arctic oceanographic conditions and equipment, and techniques used for operating in an Arctic winter environment may be obtained from:

*Frozen Sea Research Group,
Marine Sciences Branch,
Department of Energy, Mines and Resources,
825 Devonshire Road,
Esquimalt, British Columbia.*

*Attention: E.L. Lewis
Phone: (604) 338-3676*

Polar Continental Shelf Project

The Polar Continental Shelf Project is a continuing investigation of the continental shelf fringing the Arctic coast of Canada, together with adjacent parts of the Arctic Ocean basin, the islands of the Canadian Arctic Archipelago and the waters between them, and other areas that may be of special interest.

Enquiries regarding surveys and scientific studies in Arctic areas may be directed to:

*Co-ordinator,
Polar Continental Shelf Project,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.*

*Name: E.F. Roots
Phone: (613) 996-3388*

Geological Survey of Canada

The Geological Survey of Canada carries out systematic geological and geophysical surveys in the sedimentary basins of Canada, including parts of the regions offshore from the east and west seacoasts, in Hudson Bay, and in the Arctic Islands. Cuttings and cores from east and west coast offshore drilling operations are presently stored at the Institute of Sedimentary and Petroleum Geology, Calgary, and those from Hudson Bay are stored in Ottawa. Information regarding the availability of cores and cuttings after their release from confidential status is given in Appendix C.

Inquiries with regard to the operations and publications of the Geological Survey should be made to:

*Director,
Geological Survey of Canada,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.*

*Name: Y.O. Fortier
Phone: (613) 994-5817*

or to:

*Director,
Institute of Sedimentary and Petroleum Geology,
Geological Survey of Canada,
Department of Energy, Mines and Resources,
Calgary 44, Alberta.*

*Name: D.J. McLaren
Phone: (403) 284-0110*

or to:

*Geological Survey of Canada,
Department of Energy, Mines and Resources,
6th Floor, Sun Building,
Vancouver 3, British Columbia.*

*Attention: J.O. Wheeler
Phone: (604) 666-1788*

Earth Physics Branch

This Branch is involved to some extent in offshore scientific studies in the field of geophysics including earthquake, crustal seismic, gravity, three-component airborne magnetometer, and heat flow measurements. Inquiries with regard to the work of this agency may be made to:

*Director,
Earth Physics Branch,
Department of Energy, Mines and Resources,
Ottawa, Ontario.*

*Name: J.H. Hodgson
Phone: (613) 994-5253*

Surveys and Mapping Branch

Air photographs covering all portions of Canada may be obtained from:

*Air Photo Library,
Surveys and Mapping Branch,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.*

*Attention: G.H. Whitcher
Phone: (613) 994-9113*

Topographic maps, indexes, charts, atlases and numerous other map publications may be obtained from:

*Map Distribution Office,
Surveys and Mapping Branch,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.*

*Attention: G.A. Clemmer
Phone: (613) 994-9663*

MINISTRY OF TRANSPORT

Canadian Meteorological Service

Requests for information and assistance on meteorological and sea-ice data, climatology, weather forecasting, meteorological instruments and research may be directed to:

*Administrator,
Canadian Meteorological Service,
Ministry of Transport,
315 Bloor Street West,
Toronto 181, Ontario.*

*Name: J.R.H. Noble
Phone: (416) 966-6539*

Information may also be obtained through the Meteorological Liaison Officer in Ottawa. This position is filled on a rotation basis and the name of the officer is subject to change. Inquiries in Ottawa may be directed to:

*Meteorological Liaison Officer,
Ministry of Transport,
No. 3 Temporary Building,
Ottawa, Ontario.*

*Name: D.J. Wright
Phone: (613) 992-4217*

DEPARTMENT OF FISHERIES AND FORESTRY

Fisheries Research Board of Canada

The Fisheries Research Board has four research stations on the east coast of Canada, in addition to two on the west coast, and operates vessels which carry out regular cruises. The Board's Arctic Biological Station has information pertinent to Hudson Bay. Also, there is a newly established pollution research laboratory at the Bedford Institute.

Information on the work of the Fisheries Research Board may be obtained from:

*Deputy Chairman,
Fisheries Research Board of Canada,
Sir Charles Tupper Building,
Ottawa 8, Ontario.*

*Name: W.R. Martin
Phone: (613) 997-4593*

APPENDICES

Appendix A

SECURITY AND VISIT CLEARANCES FOR INDUSTRY PERSONNEL

Security Clearances

Approval must be obtained for all offshore exploration programs from the appropriate Office of the Maritime Commander, Department of National Defence, before work can commence. Programs off the east coast, in Hudson Bay and in Arctic waters east of longitude 141° West, are the concern of the Commander, Maritime Command, Halifax; those off the west coast are the concern of the Commander, Maritime Forces Pacific, Victoria. Addresses and further details are given in Section A.

Prior to an operator obtaining approval for a proposed program from the Department of National Defence, representatives of the operator may have to discuss operational details of the program with staff officers of Maritime Command. Security clearance in this connection is not mandatory, but it is suggested that bona-fide operators with extensive or long-term exploration programs nominate one or two persons for security clearances to facilitate any such discussions. The number of security-cleared personnel may exceed two if this can be justified. The Resource Administration Division acts as a clearing house with respect to applications from employees of offshore operators for security clearance. The procedures set out below have been established at the request of the Department of National Defence.

A representative nominated for security clearance by an operator should complete a Personal History Form and send same to the Chief, Resource Administration Division, Department of Energy, Mines and Resources, Ottawa. Copies of the Personal History Form (DND 450) are available from this Division. The operator will be notified by the Division as soon as the application has been processed. Processing may take in the order of three months, and operators should take this into account when planning offshore activities. It usually takes less time for a Canadian citizen to obtain security clearance.

A security clearance is valid for five years, and may be renewed by resubmitting a Personal History

Form. A change in employment or lapse of the five-year period invalidates a security clearance.

Please note that the term "clearance" should be used when referring to personnel, whereas the term "approval" should be used in connection with exploration programs.

Visit Clearance Requests

The procedures that security-cleared representatives should follow in order to meet with staff officers of Maritime Command for the purpose of discussing exploration programs have recently been standardized and simplified. They involve the use of Visit Clearance Request forms which are available from the Industrial Security Branch, Department of Supply and Services, Ottawa.

Security-cleared representatives should submit these Visit Clearance Requests direct to the Industrial Security Branch. It is advisable to request that the visit period be for six months, the maximum allowed. This enables representatives to contact Maritime Command directly at any time during the six-month period for discussions without the necessity of referring back to the Department of Supply and Services prior to each visit. The names of all security-cleared employees may be shown on one Visit Clearance Request. Also, it is suggested that the Request be re-submitted at the end of five months for renewal purposes.

Industry representatives without security clearance are allowed to conduct unclassified briefings with staff officers of Maritime Command if the respective Maritime Commander is provided with 10 to 14 days prior notice of any proposed discussions.

As stated in Section A, the Office of the Commander, Maritime Command, should be given 45 days advance notice in writing of any exploration program, and approval must be obtained from the Department of National Defence before the commencement of work.

Appendix B

GUARANTY DEPOSITS

Promissory Notes

Promissory notes may be used to meet deposit requirements of oil and gas permits issued under the Canada Oil and Gas Land Regulations and of mineral claims issued under the Canada Mining Regulations. The following procedures should be adequate for most cases, but if special circumstances arise, assistance may be obtained from the Resource Administration Division, Department of Energy, Mines and Resources.

The simplest way to apply promissory notes is to treat them essentially as though they were cash funds. They should, therefore, be issued in amounts equal to the specific deposit requirements involved. Two factors should be considered when determining the holdings to be covered by any one promissory note; first, that all the holdings covered have the same anniversary date or nearly so; and secondly, that they are all within the same allocation group.

In the event that a permittee may not be prepared to organize a large block of oil and gas permits into groups at the time of application, a single promissory note covering all the permits would be acceptable. This could be exchanged for the appropriate number of notes at a later date when groups have been determined. However, should 'work bonus' bids be involved, a separate promissory note must be submitted in respect of each bid.

To be acceptable, a promissory note must be approved for issue by a Canadian chartered bank, bear the corporate seal of the issuing company, and be guaranteed by a letter from the bank approving the note.

The termination date of the bank letter of guaranty must cover the deposit period and the grace period at the end of a work period and an additional 30 days in which to process the note in the event it has to be cashed. A letter of guaranty should therefore be dated 120 days later than the anniversary date in the case of oil and gas permits, and 60 days in the case of mineral claims. Letters of guaranty may be issued to cover individual promissory notes with specific expiry dates, or they may be issued to cover all the notes submitted by a company for a specific period of time.

Government Bonds

Bonds guaranteed by the Government of Canada or a Province are accepted by the Department of Energy, Mines and Resources at market value to fulfill guaranty deposits against the work requirements set out in the Canada Oil and Gas Land Regulations and the Canada Mining Regulations. Permittees depositing such bonds in accordance with Section 41 of the Canada Oil and Gas Land Regulations, and Sections 26 and 34 of the Canada Mining Regulations, will be required to maintain these deposits at a market value not less than the deposit requirements set out in the Regulations.

Appendix C

AVAILABILITY OF REPORTS AND WELL MATERIALS

Under the Canada Oil and Gas Land Regulations, an operator is required to submit a comprehensive report on every program undertaken in connection with the company's work requirements. These reports, together with associated materials such as cores and cuttings and micropaleontological materials derived from drilling operations, are held strictly confidential for the requisite period and then are made available to the public for examination.

Information submitted by a company can only become available prior to its release from confidential status with the written consent of the company. Some data, including general topographic data, legal surveys, elevations of well locations, and the current depth and status of wells, may be released at any time. Well history reports, well logs and associated materials from an exploratory well may be released two years after the completion, suspension or abandonment of the well. Information on a development well may be released thirty days after its completion, suspension or abandonment.

Reports submitted to the Department of Energy, Mines and Resources under the Canada Oil and Gas Land Regulations and subsequently released from confidential status are available for examination on an open-file basis at:

*Office of the Senior Conservation Engineer,
Resource Administration Division,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.
Phone: (613) 994-9756*

These reports, together with those released by the Department of Indian Affairs and Northern Development relating to operations in the Territories and waters of the Far North, are also available for examination on an open-file basis at:

*Office of the Oil Conservation Engineer,
Northern Economic Development Branch,
Department of Indian Affairs and Northern
Development, Main Floor, Regency Building,
112 - 11th Avenue S.E.,
Calgary 21, Alberta.
Phone: (403) 264-0201*

Copies of many reports may be purchased after expiry of the confidential period from:

*West Canadian Graphic Industries Ltd.,
810 Fifth Avenue S.W.,
Calgary 1, Alberta.
Phone: (403) 263-2555*

Well logs at a reduced scale may be purchased after expiry of the confidential period from:

*Riley's Data Share International,
631-8th Avenue S.W.,
Calgary 2, Alberta.
Phone: (403) 266-6051*

Cores, cuttings, paleontological and other materials from wells drilled offshore are currently being stored and handled as follows:

(a) In the case of wells drilled off the west coast:
*Institute of Sedimentary and Petroleum Geology,
Geological Survey of Canada,
Department of Energy, Mines and Resources,
3303-33rd Street,
Calgary 44, Alberta.*

*Attention: B.A. Latour
Phone: (403) 284-0110*

(b) In the case of wells drilled in the Hudson Bay and Hudson Strait regions:

*Geological Survey of Canada,
Department of Energy, Mines and Resources,
Ottawa 1, Ontario.*

*Attention: U. ter Haar Romeny
Phone: (613) 994-5164*

(c) In the case of wells drilled off the east coast:

*Resource Administration Division,
Department of Energy, Mines and Resources,
Bedford Institute,
Dartmouth, Nova Scotia.*

*Attention: J.D. Clinton
Phone: (902) 426-3179*

Until facilities are complete for storing east coast cores and cuttings at the Division's regional office at the Bedford Institute, the materials will continue to be stored at the Institute of Sedimentary and Petroleum Geology, Calgary.

Appendix D

LIST OF PUBLICATIONS

Canada Oil and Gas Permit Maps

The following maps may be obtained by writing to the Resource Administration Division, Department of Energy, Mines and Resources, Ottawa.

- Map No. 100. West Coast 1":16 miles
- Map No. 150. East Coast 1":25 miles
- Map No. 151. Labrador Sea and Hudson Strait 1":25 miles
- Map No. 200. Hudson Bay 1":25 miles

These maps show the distribution of Offshore Canada Oil and Gas Permits, and they are revised to the date of mailing. An Index is provided for use with these maps indicating the location of each permit, the name of the permittee, the date of issue and the acreage involved. The price of each map is \$3.00, which includes the cost of mailing. There is no charge for the Index.

Smaller, page-sized permit maps, shown in Appendix G, are also available upon request. They are updated periodically and normally distributed free of charge.

Maps showing permits in the Territories and waters of the far North are available from the Northern Economic Development Branch, Department of Indian Affairs and Northern Development, Ottawa.

Maps and base maps showing Canada Oil and Gas Permit acreage are also available commercially.

Other Publications

There are a number of other publications and papers available from the Resource Administration Division, Department of Energy, Mines and Resources. They are free of charge, and include a monthly Oil and Gas Report which summarizes the disposition of Canada Oil and Gas Permits off the east and west coasts and in the Hudson Bay and Hudson Strait regions, as well as oil and gas leases issued for federally-owned mineral rights in the Provinces. Also included in this Report is the status of current wells in the Offshore, and an up-dated list of technical reports by offshore operators released from confidential status.

FEDERAL ACTS AND REGULATIONS

The publications listed below may be obtained from The Queen's Printer, Ottawa:

Office Consolidation (1968): Canada Oil and Gas Land Regulations as amended; Oil and Gas Land Orders as amended; Territorial Lands Act and Public Lands Grants Act as amended.

Catalogue No: R74-1067

Price: 75c per copy.

Canada Mining Regulations,

Canada Oil and Gas Drilling and Production Regulations,

Oil and Gas Production and Conservation Act, as amended,

Public Lands Oil and Gas Regulations,

Public Lands Mineral Regulations.

The disposition of oil and gas rights underlying Canada Lands is provided for by the Canada Oil and Gas Regulations, which were promulgated under the Public Lands Grants Act and the Territorial Lands Act. It is the former Act that provides the statutory authority for the application of these Regulations to the Offshore. Copies of both Acts are included in the Office Consolidation of the Regulations listed above.

The Oil and Gas Production and Conservation Act, as amended, applies to Canada Lands in the Offshore, as well as to Canada Lands in the Yukon and Northwest Territories. The Act provides for comprehensive statutory authority for controlling all offshore oil and gas activities, including the safety of personnel and the prevention of waste and pollution. The Act's broad authority includes regulation of the exploration and drilling for and the production, conservation, measuring, gathering, storage, processing, distribution, transmission and other handling of oil and gas offshore.

ORGANIZATION OF THE GOVERNMENT OF CANADA

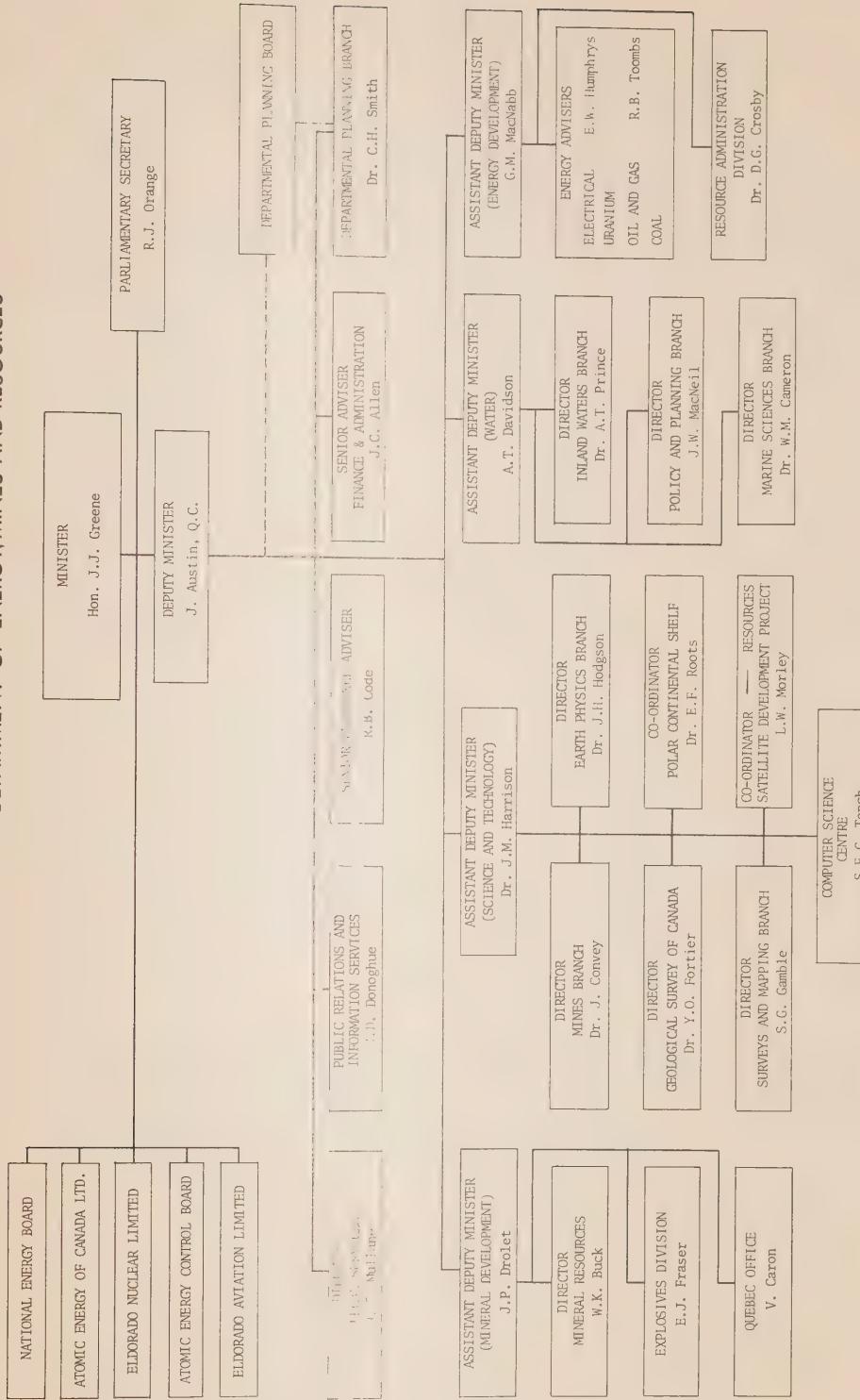
This is a loose-leaf book, the purpose of which is to inform the general public of the duties and functions of the various Federal Departments and other

government agencies. It is revised semi-annually and published by The Queen's Printer, Ottawa. The price is \$3.00 per copy and the revision price is \$5.00 per year.

OTTAWA: GOVERNMENT DIRECTORY

This is a telephone directory available from The Queen's Printer at a cost of \$1.00 per book.

DEPARTMENT OF ENERGY, MINES AND RESOURCES
CANADA



Appendix F



DEPARTMENT OF ENERGY, MINES AND RESOURCES
RESOURCE ADMINISTRATION DIVISION

East Coast
Hudson Bay - Hudson Strait
West Coast

Offshore Program Notice

This Notice is submitted in compliance with Section 52 of the "Canada Oil and Gas Land Regulations"

General Information

Exploratory Licence No: Held by:

Permits or leases with group nos.

Off-permit or off-lease areas involved:

Permits to which expenditures are to be applied:

Operational Data

Date of commencement: Approx. duration:

Estimated cost: On-permit Off-permit

Type of work

Equipment & no. of persons to be employed: Name of vessel:

Prime Contractor: Phone:

Address:

Other Information:

Signed: Title:

Date: Company:

Notes

1. A separate Notice should be submitted in triplicate for each program or survey 45 days prior to the commencement of work. This Notice covers all types of operations except drilling. It should be accompanied by a map showing the permit area concerned and the proposed lines to be run.
2. All Notices should be addressed to Chief, Resource Administration Division, Department of Energy, Mines and Resources, Ottawa. One copy will be returned to the Company.
3. Certain other Government agencies must be informed of this program prior to its commencement and of any significant changes to it. The Resource Administration Division may be contacted for advice in this regard.
4. The Project Number, which is assigned upon approval, should be used to identify the program in all subsequent references.

Approval

CHIEF, RESOURCE ADMINISTRATION DIVISION

Project No.



DEPARTMENT OF ENERGY, MINES AND RESOURCES
RESOURCE ADMINISTRATION DIVISION

East Coast
Hudson Bay
West Coast

Offshore Drilling Notice

This Notice is submitted in compliance with Section 52 of the "Canada Oil and Gas Land Regulations". Its approval constitutes the requisite authority to commence drilling operations under Section 4 of the "Canada Oil and Gas Drilling and Production Regulations".

Well Information

Well Name in full:

Operator: Exploratory Licence No.

Contractor: Water Permit or Lease No.

Drilling Rig or Unit: Estimated Well Cost:

Location: Unit Section Grid Area:

Coordinates: Lat. Long.

Elevation: RT/KB Water Depth:

Approx. Spud Date: Estimated Time on Location:

Anticipated Total Depth:

Potentially Productive Intervals:

Age	Name	Lithology	Top	Thickness
.....
.....
.....
.....

Casing and Cement Program:

Name of String	O.D.	Weight/Ft.	Grade	Depth Set	Sacks Cement
.....
.....
.....

B.O.P. Equipment:

Well Supervisor: Title: Phone:

Address: Phone:

AAPG Well Classification: Other Information:

New-field wildcat

New-pool wildcat

Shallow-pool test

Deeper-pool test

Outpost well

Signed: Title:

Date: Company: Notes:

Notes

1. This Notice and a location plan should be submitted in triplicate for each well.
2. All Notices should be addressed to the Chief, Resource Administration Division, Department of Energy, Mines and Resources, Ottawa. One copy will be returned to the Company.
3. Certain other Government agencies must be informed of this operation prior to its commencement and of any significant changes to it. The Resource Administration Division may be contacted for advice in this regard.

Approval

CHIEF, RESOURCE ADMINISTRATION DIVISION

File No. Project No.

Additional Information

Casing and Cementing Record:

.....
.....
.....
.....

Permeable Intervals:

.....
.....
.....
.....

Perforation, Stimulation, Testing and Evaluation Jobs:

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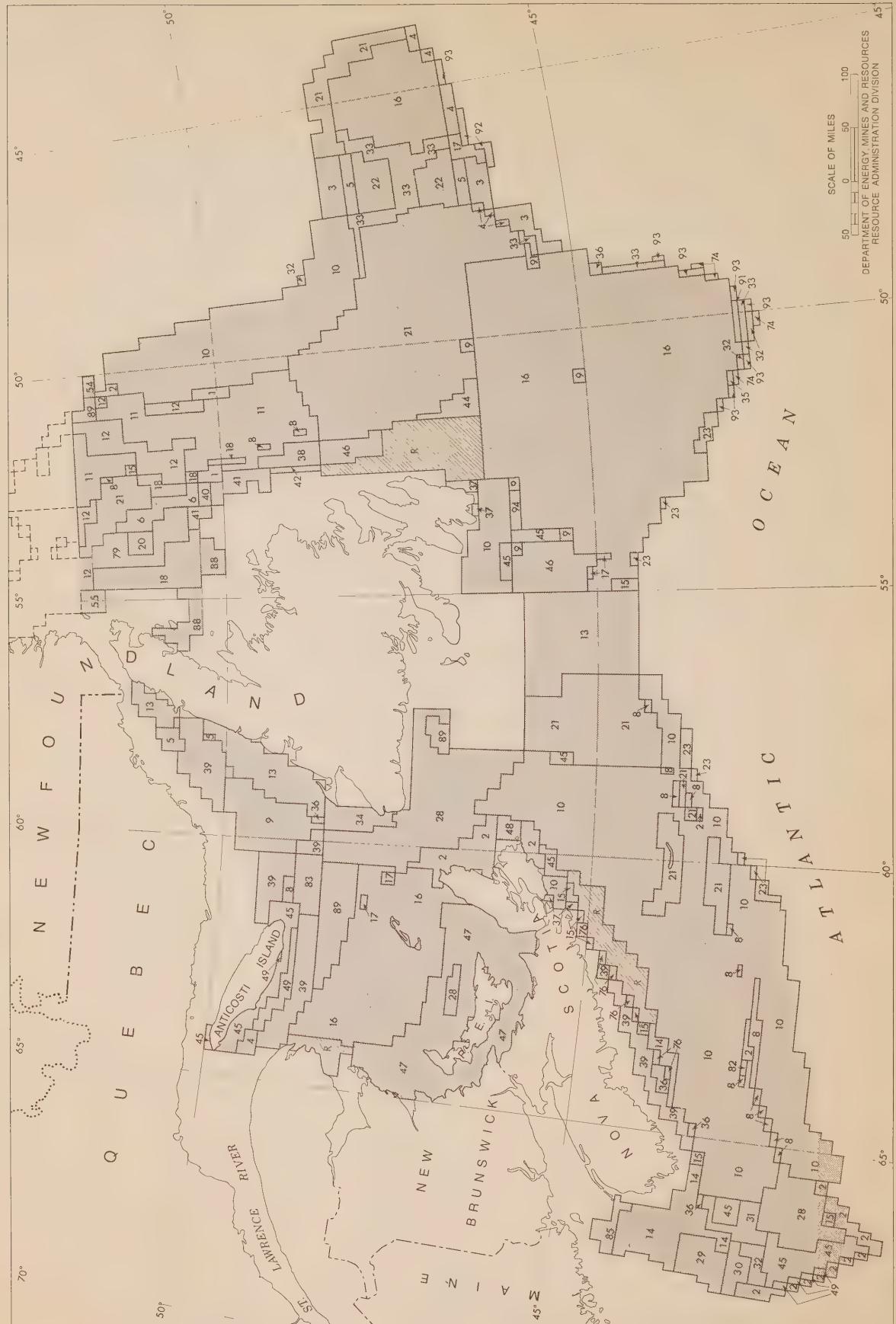
Other Information:

(To include variations to the original, orally approved program dictated by on-the-job considerations).

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.....
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.....
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Appendix G

OFFSHORE OIL AND GAS PERMIT MAPS



60°

55°

50°

SCALE OF MILES

50 0 50 100

DEPARTMENT OF ENERGY, MINES AND RESOURCES
RESOURCE ADMINISTRATION DIVISION

GREENLAND

60°

55°

L A B R A D O R

S E A

A
B

R

A

D

O

FEDERAL OIL AND GAS EXPLORATORY PERMITS

LABRADOR SEA

JULY 1, 1970

60° 55° 50°





INDEX TO FEDERAL OIL AND GAS PERMIT MAPS AND ACREAGE

KEY NO.	PERMITTEE	GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC OCEAN	TOTALS
1	CITIZENS PIPELINE	368,305	131,849	484,104	327,312	1,311,570
2	SIEBENS OIL & GAS	3,388,332				3,388,332
3	R.G. BELFOI	2,184,669				2,184,669
4	SYRACUSE OILS	897,488		1,184,738		2,082,226
5	TRUDEL MINERALS	1,099,747	394,298			1,494,045
6	{ WESTERN DECALTA 45% PETROL OIL & GAS 5% PETROREP CANADA 25% COREXCAL INC. 25% }	886,065	284,591	616,608		1,787,264
7	BOSWELL MINERALS			609,372		609,372
8	RANGER OIL	1,364,119	249,179		239,268	1,852,566
9	CANADIAN HOMESTEAD	2,894,327		5,546,634		8,440,961
10	SHELL CANADA	47,368,998			12,283,818	59,652,816
11	TRIAD-B.P. EXPLOR'N	7,719,668	4,929,359			12,649,027
12	TENNECO OIL	2,842,479	28,979,564			31,822,043
13	GULF OIL	8,496,088			675,000	9,171,088
14	{ TRANSALTA OIL & GAS 80% MARWOOD PETROLEUMS 20% }	3,178,545				3,178,545
15	SHENANDOAH OIL	591,489	732,758			1,324,247
16	AMOCO CANADA PET.	9,827,967			348,616	10,176,583
17	CAN. TRUST COMPANY	571,481		2,055,194		2,626,675
18	CAN. INDUSTRIAL G. & O.	2,621,016	422,862	1,404,688		4,448,566
19	WESTERN LAND SERVICE		149,109	129,624		278,733
20	TROY OILS	320,494				320,494
21	MOBIL OIL	28,532,207	196,054	4,051,896		32,780,157
22	DOME PETROLEUM	2,081,689		1,456,126		3,537,815
23	JOE PHILLIPS LTD.	1,017,799		507,944		1,525,743
24	SUCCESS OIL LIMITED		305,397			305,397
25	WAINOCO OIL & CHEM.		1,878,954	510,668		2,389,622
26	SULPETRO OF CANADA			2,903,823		2,903,823
27	WESTERN MINERALS			1,561,346	592,287	2,153,633
28	TEXACO EXPLORATION	9,237,668				9,237,668
29	CAN. PERMANENT TRUST	1,165,941	74,781			1,240,722
30	MONTREAL TRUST CO.	563,830				563,830
31	CENTRAL-DEL RIO OILS	798,099				798,099
32	CANADIAN SUPERIOR OIL	653,687				653,687
33	VOYAGER PETROLEUMS	2,707,931				2,707,931
34	J.M. COYNE	725,032				725,032
35	JEFFERSON LAKE PETCHEM.	46,542				46,542
36	R.F. GOSS	409,508				409,508
37	A.S. MCLEAN	215,830				215,830
38	ANCO EXPLORATION	670,017				670,017
39	CANADIAN RESERVE O & G	6,054,289			294,698	6,348,987
40	INTER-ROCK OIL	163,378				163,378
41	ACROLL OIL & GAS	987,010				987,010
42	COLUMBIAN NORTHLAND EXPLOR.	167,573				167,573
43	SCURRY-RAINBOW OIL LTD.	533,576				533,576
44	{ NORTHERN OIL EXPLORERS 75% ANDEX OIL COMPANY 25% }	655,677				655,677
45	CHEVRON STANDARD	3,669,581				3,669,581
46	ELF OIL EXPLORATION	2,859,619				2,859,619
47	HUDSON'S BAY OIL & GAS	8,402,067				8,402,067
48	MURPHY OIL COMPANY	306,675				306,675
49	NEW ASSOCIATED DEV.	634,958				634,958
50	PADDON HUGHES DEV.		574,423			574,423
51	{ DUNCAN OIL LIMITED 37.5% FAIRLANE RESOURCES LTD. 12.5% DELTA PETROLEUM CORP'N 15.0% TRANS-CANADA RESOURCES 10.0% AMAREX INC. 25.0% }			2,067,004		2,067,004
52	J.E. MITCHELL			122,220		122,220

KEY NO.	PERMITTEE	GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC OCEAN	TOTALS
53	ATLANTIC RICHFIELD			38,804,800		38,804,800
54	AQUITAINE COMPANY		2,697,162	18,487,902		21,185,064
55	A.M. FIELDING	315,890				315,890
56	SUNLITE LAND LTD			3,874,522		3,874,522
57	KESTREL EXPLORATION			7,021,312		7,021,312
58	PEYTO OILS LTD			285,644		285,644
59	HIGH COUNTRY MINERALS		64,333			64,333
60	{BOSWELL MINERALS 50% CANADIAN EXPORT G & O 50%}		640,950			640,950
61	YELLOWKNIFE BEAR MINES			277,299		277,299
62	PIPAWA EXPLORATIONS LTD			103,000		103,000
63	TECK CORPORATION			1,021,424		1,021,424
64	SOGEPET LIMITED			685,944		685,944
65	OPEKAR INVESTMENTS			124,488		124,488
66	WORLDWIDE ENERGY CO.			969,823		969,823
67	J.F. LEMIEUX		145,588			145,588
68	J.C. MILLIKIN			246,384		246,384
69	GEM PETROLEUMS			1,009,404		1,009,404
70	BLUE WATER OIL & GAS			1,165,788		1,165,788
71	WESTERN OIL CONSULT.			121,244		121,244
72	ULSTER PETROLEUMS			303,110		303,110
73	MID EASTERN OIL & GAS			985,528		985,528
74	NORTH AMERICAN ENERGY	186,226				186,226
75	OFFSHORE OIL & GAS				839,155	839,155
76	{BOSWELL MINERALS 25% UNITED CANSO O & G 25% CAN EXPORT G & O 50%}	310,217				310,217
77	{TRANSALTA OIL & GAS 17.5% MOBIL OIL 25% CANADA CITIES SERVICE 30% HAMILTON BROS. CAN GAS 10% SIEBENS O & G 17.5%}			4,516,634		4,516,634
78	{AMOCO CANADA PET. 50% IMP. OIL ENTERPRISES 50%}	39,537,129				39,537,129
79	{HOUSTON OILS LTD 25% ASAMERA OIL CORP 25% OCEANIA OIL LTD 25% LOCHABER OIL CORP 25%}	1,603,867				1,603,867
80	{BOW VALLEY LAND CO. 50% HOME OIL COMPANY LTD 50%}			898,431		898,431
81	BALLINDERRY EXPLORATIONS	659,770				659,770
82	BUTTES RESOURCES CANADA	46,791				46,791
83	J.M. HUBER CORPORATION	798,712				798,712
84	{AXEL HEIBERG OIL CO. 98% ARTIX LEASEHOLDS INC. 2%}			257,334		257,334
85	{J. RAY McDERMOTT CANADA LTD. 50% GENERAL CRUDE OIL ALBERTA LTD 50%}	469,543				469,543
86	{TEXAS GULF SULPHUR 40% TECK CORPORATION 20% CAN. HOMESTEAD OILS 20% SOGEPET LIMITED 20%}			3,920,548		3,920,548
87	{BANNER PETROLEUM 40% SOGEPET LTD. 20% ASAMERA OIL 20% TECK CORP'N 20%}			3,048,361		3,048,361
88	{FRENCH PETROLEUM 50% AMERADA MINERALS 50%}	1,133,877				1,133,877
89	{SIEBENS OIL & GAS 50% TRANSALTA OIL & GAS 50%}	2,864,432	2,115,138	1,130,567		6,110,137
90	COLT EXPLORATION LTD		577,965			577,965
91	{SIEBENS OIL & GAS 75% AQUITAINE COMPANY 25%}	273,953				273,933
92	DOUGLAS F. SMITH	265,266				265,266
93	{WESTERN DECALTA 30.0000% PETROL OIL & GAS 3.3334% PETROREP CANADA 16.6666% COREXCAL INC. 16.6666% PACIFIC LIGHTING 33.3334%}	409,533				459,533
94	SUN OIL COMPANY	265,566				265,566
95	CANADIAN MINERALS (1960) LTD.		109,985			109,985
	TOTALS	214,711	50,170,933	109,954,846	15,600,154	394,798,145

Appendix H

NOTES

